

AMENDED CLAIM SET:

1. – 5. (cancelled).

6. (previously presented) A photoresist resin comprising at least a constitutional repeating unit A containing a group capable of partially leaving by the action of an acid to thereby become soluble in an alkali; and a constitutional repeating unit B containing an alicyclic skeleton having a polar group,

wherein the resin

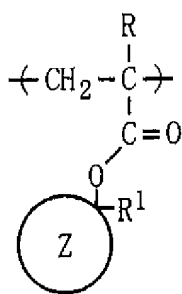
(i.) has a weight-average molecular weight of 3000 to 15000 and

(ii.) has a molecular weight distribution (M_w/M_n , wherein M_w is weight-average molecular weight and M_n is number-average molecular weight) of from 1.1 to 3.5 and

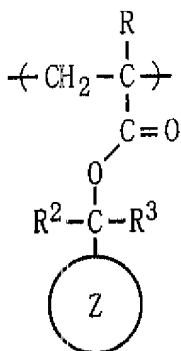
(iii.) has a content of polymer fractions each having a molecular weight exceeding 40000 of 4 percent by weight or less of the total resin.

7. (previously presented) The photoresist resin of claim 6, wherein the weight-average molecular weight is from 5000 to 13000.

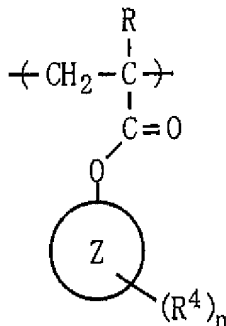
8. (new) The photoresist resin of claim 6, wherein the constitutional repeating unit A is at least one selected from constitutional repeating units of following Formulae (Ia), (Ib), and (Ic):



(Ia)



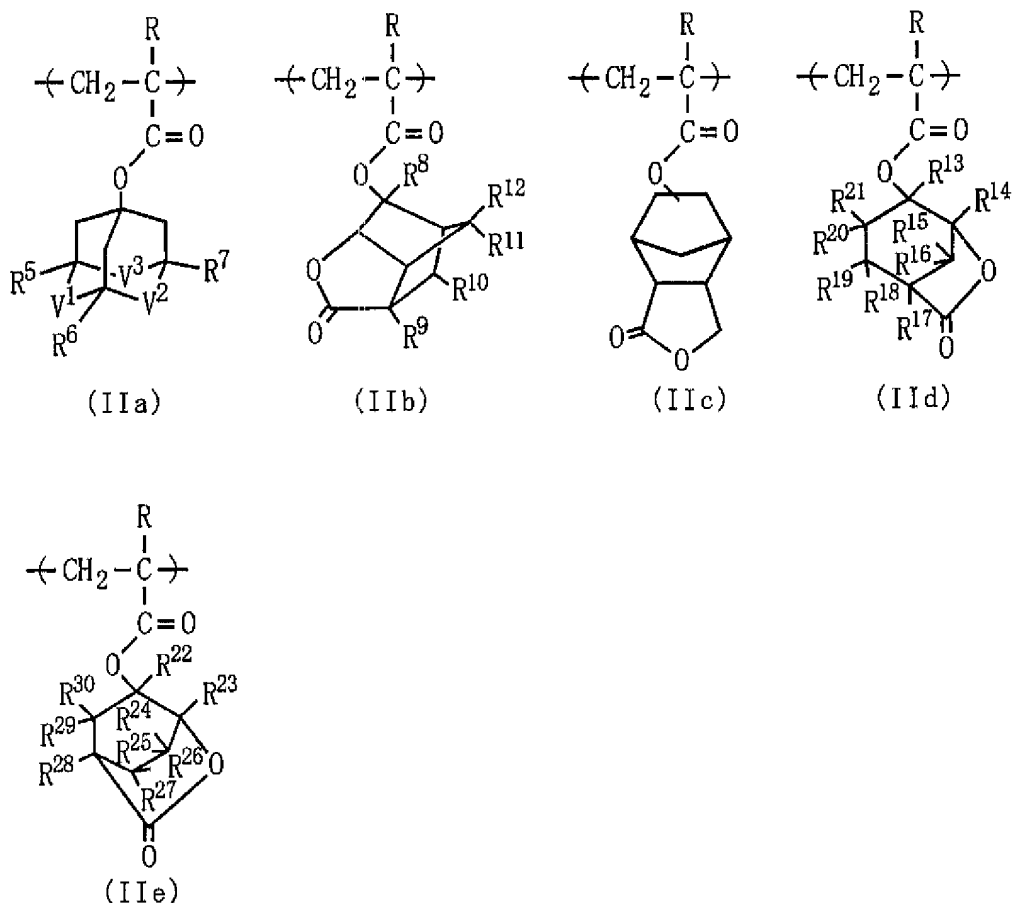
(Ib)



(Ic)

wherein Ring Z is an alicyclic hydrocarbon ring having six to twenty carbon atoms which may be substituted; R is hydrogen atom or an alkyl group having one to six carbon atoms; R¹, R² and R³ may be the same as or different from one another and are each an alkyl group having one to six carbon atoms; R⁴s are substituents combined with Ring Z, may be the same as or different from each other and are each oxo group, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group, wherein at least one of nR⁴s is a -COOR^a group, wherein R^a is a tertiary hydrocarbon group which may be substituted, tetrahydrofuranyl group, tetrahydropyranyl group or oxepanyl group; and n is an integer of 1 to 3.

9. (new) The photoresist resin of claim 6, wherein the constitutional repeating unit B is at least one selected from constitutional repeating units of following Formulae (IIa), (IIb), (IIc), (IId) and (IIe):



wherein R is hydrogen atom or an alkyl group having one to six carbon atoms; R^5 , R^6 and R^7 may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; V^1 , V^2 and V^3 may be the same as or different from one another and are each $\text{-CH}_2\text{-}$, -CO- or -COO- , wherein (i) at least one of V^1 , V^2 and V^3 is -CO- or -COO- , or (ii) at least one of R^5 , R^6 and R^7 is a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; R^8 , R^9 , R^{10} , R^{11} and R^{12} may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl

group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; R^{13} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} , R^{19} , R^{20} and R^{21} may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group; and R^{22} , R^{23} , R^{24} , R^{25} , R^{26} , R^{27} , R^{28} , R^{29} and R^{30} may be the same as or different from one another and are each hydrogen atom, an alkyl group, a hydroxyl group which may be protected by a protective group, a hydroxyalkyl group which may be protected by a protective group, or a carboxyl group which may be protected by a protective group.

10. (new) A photoresist resin composition, as a solution comprising the photoresist resin of claim 6 and a light-activatable acid generator in a solvent.

11. (new) A process for preparing a photoresist resin composition, comprising the step of dissolving the photoresist resin of claim 6 in a solvent.